

What is Claimed:

1 1. A computer program product for enabling television ("TV") commerce to generate  
2 additional revenue streams, said program product embodied on computer readable media  
3 readable by one or more computing systems in an interactive television environment having a  
4 connection to a computer network and comprising:

5 computer-readable program code means for initiating a TV commerce purchase by a  
6 consumer;

7 computer-readable program code means for gathering TV context information related to  
8 said purchase; and

9 computer-readable program code means for including said gathered context information  
10 in a payment message corresponding to said purchase.

1 2. The computer program product according to Claim 1, further comprising:

2 computer-readable program code means, responsive to said computer-readable program  
3 code means for initiating, for sending a purchase request for said purchase from said consumer to  
4 a computer in said interactive television environment;

5 computer-readable program code means for receiving said purchase request at said  
6 computer;

7 computer-readable program code means for forwarding said purchase request from said  
8 computer to a merchant connected to said interactive television environment;

9 computer-readable program code means for receiving said forwarded purchase request at  
10 said merchant;

11 computer-readable program code means for sending a payment initiation message for said  
12 purchase, responsive to said computer-readable program code means for receiving said

13 forwarded purchase request, from said merchant to said consumer through said interactive  
14 television environment;

15 computer-readable program code means for receiving said sent payment initiation  
16 message by said consumer;

17 computer-readable program code means for augmenting said received payment initiation  
18 message with said gathered TV context information, thereby creating said payment message  
19 corresponding to said purchase;

20 computer-readable program code means for forwarding said payment message to an  
21 issuing bank;

22 computer-readable program code means for receiving said forwarded payment message at  
23 said issuing bank;

24 computer-readable program code means operable at said issuing bank, responsive to said  
25 computer-readable program code means for receiving said forwarded payment message, for  
26 creating an authorization token for said purchase;

27 computer-readable program code means for sending said authorization token and said TV  
28 context information from said issuing bank to said consumer;

29 computer-readable program code means for forwarding said sent authorization token and  
30 said TV context information from said consumer to said merchant;

31 computer-readable program code means for receiving said forwarded authorization token  
32 and said TV context information at said merchant;

33 computer-readable program code means for sending, responsive to said computer-  
34 readable program code means for receiving said forwarded authorization token and said TV  
35 context information, a capture request from said merchant to an acquiring bank, along with said  
36 received authorization token and said received TV context information;

37 computer-readable program code means for receiving said capture request, said received  
38 authorization token, and said received TV context information at said acquiring bank; and

39 computer-readable program code means for charging, responsive to said computer-  
40 readable program code means for receiving said capture request, said received authorization  
41 token, and said received TV context information, an account of said consumer for said purchase.

1 3. The computer program product according to Claim 2, wherein said TV context  
2 information is included as a part of said authorization token.

1 4. The computer program product according to Claim 2, wherein said payment initiation  
2 message is a wallet initiation message and wherein said gathered TV context information  
3 augments said received wallet initiation message, thereby creating said payment message  
4 corresponding to said purchase, and further comprising:

5 computer-readable program code means for invoking a wallet program upon receipt of  
6 said sent payment initiation message by said consumer;

7 computer-readable program code means for logging on to said wallet program by said  
8 consumer, thereby creating consumer log-on data; and

9 computer-readable program code means for including said consumer log-on data when  
10 said payment message is forwarded to said issuing bank.

1 5. The computer program product according to Claim 2, wherein said payment initiation  
2 message is digitally signed by said merchant using a digital certificate of said merchant and said  
3 authorization token is digitally signed by said issuing bank using an issuing bank digital  
4 certificate, and further comprising:

5 computer-readable program code means for verifying said digitally signed payment  
6 initiation message using said digital certificate of said merchant; and  
7 computer-readable program code means for verifying said digitally signed authorization  
8 token using said issuing bank digital certificate.

1 6. The computer program product according to Claim 1, further comprising:  
2 computer-readable program code means for using said included context information for  
3 allocating a portion of a payment represented by said payment message to one or more TV  
4 originators.

1 7. The computer program product according to Claim 6, wherein said computer-readable  
2 program code means for using said included context information further comprises:

3 computer-readable program code means for extracting an identification of each of said  
4 one or more TV originators from said included context information; and

5 computer-readable program code means for allocating a predetermined percent of said  
6 payment to each of said identified TV originators.

1 8. The computer program product according to Claim 7, further comprising computer-  
2 readable program code means for sending said included context information from said acquiring  
3 bank to at least one of said one or more identified TV originators.

1 9. The computer program product according to Claim 2, further comprising:  
2 computer-readable program code means for authenticating said consumer by digitally  
3 signing said payment message by said consumer using a consumer digital certificate; and

4 computer-readable program code means for verifying said digitally signed payment  
5 message using said consumer digital certificate.

1 10. The computer program product according to Claim 2, further comprising computer-  
2 readable program code means for using a shared key known to said consumer and said issuing  
3 bank to authenticate said consumer.

1 11. The computer program product according to Claim 1, further comprising:

2 computer-readable program code means, responsive to said computer-readable program  
3 code means for initiating, for sending a purchase request for said purchase from said consumer to  
4 a computer in said interactive television environment;

5 computer-readable program code means for receiving said purchase request at said  
6 computer;

7 computer-readable program code means for forwarding said purchase request from said  
8 computer to a merchant connected to said interactive television environment;

9 computer-readable program code means for receiving said forwarded purchase request at  
10 said merchant;

11 computer-readable program code means for sending a payment initiation message for said  
12 purchase, responsive to said computer-readable program code means for receiving said  
13 forwarded purchase request, from said merchant to said consumer through said interactive  
14 television environment;

15 computer-readable program code means for receiving said sent payment initiation  
16 message by said consumer;

17 computer-readable program code means for augmenting said received payment initiation  
18 message with said gathered TV context information, thereby creating said payment message  
19 corresponding to said purchase;

20 computer-readable program code means for returning said payment message to said  
21 merchant;

22 computer-readable program code means for forwarding said returned payment message  
23 from said merchant to a card company or bank;

24 computer-readable program code means for charging, responsive to said computer-  
25 readable program code means for receiving said forwarded payment message, an account of said  
26 consumer for said purchase; and

27 computer-readable program code means for paying said merchant for said purchase.

1 12. The computer program product according to Claim 11, wherein said payment initiation  
2 message is a wallet initiation message and wherein said gathered TV context information  
3 augments said received wallet initiation message, thereby creating said payment message  
4 corresponding to said purchase, and further comprising:

5 computer-readable program code means for invoking a wallet program upon receipt of  
6 said sent payment initiation message by said consumer;

7 computer-readable program code means for logging on to said wallet program by said  
8 consumer, thereby creating consumer log-on data; and

9 computer-readable program code means for including said consumer log-on data when  
10 said payment message is forwarded to said merchant.

1 13. The computer program product according to Claim 11, wherein said payment initiation  
2 message is digitally signed by said merchant using a digital certificate of said merchant, and

3 further comprising computer-readable program code means for verifying said digitally signed  
4 payment initiation message using said digital certificate of said merchant.

1 14. The computer program product according to Claim 11, further comprising:  
2 computer-readable program code means for using said included context information for  
3 allocating a portion of a payment represented by said payment message to one or more TV  
4 originators.

1 15. The computer program product according to Claim 14, wherein said computer-readable  
2 program code means for using said included context information further comprises:

3 computer-readable program code means for extracting an identification of each of said  
4 one or more TV originators from said included context information; and

5 computer-readable program code means for allocating a predetermined percent of said  
6 payment to each of said identified TV originators.

1 16. The computer program product according to Claim 15, further comprising computer-  
2 readable program code means for sending said included context information from said card  
3 company or bank to at least one of said one or more identified TV originators.

1 17. The computer program product according to Claim 11, further comprising:  
2 computer-readable program code means for authenticating said consumer by digitally  
3 signing said payment message by said consumer using a consumer digital certificate; and  
4 computer-readable program code means for verifying said digitally signed payment  
5 message using said consumer digital certificate.

1 18. The computer program product according to Claim 11, further comprising computer-  
2 readable program code means for using a shared key known to said consumer and said issuing  
3 bank to authenticate said consumer.

1 19. The computer program product according to Claim 1, further comprising:  
2 computer-readable program code means for initiating a payment transaction by said  
3 consumer;  
4 computer-readable program code means for gathering TV context information related to  
5 said payment transaction; and  
6 computer-readable program code means for including said gathered TV context  
7 information in a message corresponding to said payment transaction.

1 20. A system for enabling television ("TV") commerce to generate additional revenue  
2 streams in an interactive television environment, said environment having a connection to a  
3 computer network and said system comprising:  
4 means for initiating a TV commerce purchase by a consumer;  
5 means for gathering TV context information related to said purchase; and  
6 means for including said gathered context information in a payment message  
7 corresponding to said purchase.

1 21. The system according to Claim 20, further comprising:  
2 means, responsive to said means for initiating, for sending a purchase request for said  
3 purchase from said consumer to a computer in said interactive television environment;  
4 means for receiving said purchase request at said computer;



5 means for forwarding said purchase request from said computer to a merchant connected  
6 to said interactive television environment;

7 means for receiving said forwarded purchase request at said merchant;

8 means for sending a payment initiation message for said purchase, responsive to said  
9 means for receiving said forwarded purchase request, from said merchant to said consumer  
10 through said interactive television environment;

11 means for receiving said sent payment initiation message by said consumer;

12 means for augmenting said received payment initiation message with said gathered TV  
13 context information, thereby creating said payment message corresponding to said purchase;

14 means for forwarding said payment message to an issuing bank;

15 means for receiving said forwarded payment message at said issuing bank;

16 means operable at said issuing bank, responsive to said means for receiving said  
17 forwarded payment message, for creating an authorization token for said purchase;

18 means for sending said authorization token and said TV context information from said  
19 issuing bank to said consumer;

20 means for forwarding said sent authorization token and said TV context information from  
21 said consumer to said merchant;

22 means for receiving said forwarded authorization token and said TV context information  
23 at said merchant;

24 means for sending, responsive to said means for receiving said forwarded authorization  
25 token and said TV context information, a capture request from said merchant to an acquiring  
26 bank, along with said received authorization token and said received TV context information;

27 means for receiving said capture request, said received authorization token, and said  
28 received TV context information at said acquiring bank; and

means for charging, responsive to said means for receiving said capture request, said received authorization token, and said received TV context information, an account of said consumer for said purchase.

22. The system according to Claim 21, wherein said TV context information is included as a part of said authorization token.

23. The system according to Claim 21, wherein said payment initiation message is a wallet initiation message and wherein said gathered TV context information augments said received wallet initiation message, thereby creating said payment message corresponding to said purchase, and further comprising:

means for invoking a wallet program upon receipt of said sent payment initiation message by said consumer;

means for logging on to said wallet program by said consumer, thereby creating consumer log-on data; and

means for including said consumer log-on data when said payment message is forwarded to said issuing bank.

24. The system according to Claim 21, wherein said payment initiation message is digitally signed by said merchant using a digital certificate of said merchant and said authorization token is digitally signed by said issuing bank using an issuing bank digital certificate, and further comprising:

means for verifying said digitally signed payment initiation message using said digital certificate of said merchant; and

7 means for verifying said digitally signed authorization token using said issuing bank  
8 digital certificate.

1 25. The system according to Claim 20, further comprising:

2 means for using said included context information for allocating a portion of a payment  
3 represented by said payment message to one or more TV originators.

1 26. The system according to Claim 25, wherein said means for using said included context  
2 information further comprises:

3 means for extracting an identification of each of said one or more TV originators from  
4 said included context information; and

5 means for allocating a predetermined percent of said payment to each of said identified  
6 TV originators.

1 27. The system according to Claim 26, further comprising means for sending said included  
2 context information from said acquiring bank to at least one of said one or more identified TV  
3 originators.

1 28. The system according to Claim 21, further comprising:

2 means for authenticating said consumer by digitally signing said payment message by  
3 said consumer using a consumer digital certificate; and

4 means for verifying said digitally signed payment message using said consumer digital  
5 certificate.

1 29. The system according to Claim 21, further comprising means for using a shared key  
2 known to said consumer and said issuing bank to authenticate said consumer.

1 30. The system according to Claim 20, further comprising:  
2 means, responsive to said means for initiating, for sending a purchase request for said  
3 purchase from said consumer to a computer in said interactive television environment;  
4 means for receiving said purchase request at said computer;  
5 means for forwarding said purchase request from said computer to a merchant connected  
6 to said interactive television environment;  
7 means for receiving said forwarded purchase request at said merchant;  
8 means for sending a payment initiation message for said purchase, responsive to said  
9 means for receiving said forwarded purchase request, from said merchant to said consumer  
10 through said interactive television environment;  
11 means for receiving said sent payment initiation message by said consumer;  
12 means for augmenting said received payment initiation message with said gathered TV  
13 context information, thereby creating said payment message corresponding to said purchase;  
14 means for returning said payment message to said merchant;  
15 means for forwarding said returned payment message from said merchant to a card  
16 company or bank;  
17 means for charging, responsive to said means for receiving said forwarded payment  
18 message, an account of said consumer for said purchase; and  
19 means for paying said merchant for said purchase.

1 31. The system according to Claim 30, wherein said payment initiation message is a wallet  
2 initiation message and wherein said gathered TV context information augments said received

3 wallet initiation message, thereby creating said payment message corresponding to said purchase,  
4 and further comprising:

5 means for invoking a wallet program upon receipt of said sent payment initiation message  
6 by said consumer;

7 means for logging on to said wallet program by said consumer, thereby creating  
8 consumer log-on data; and

9 means for including said consumer log-on data when said payment message is forwarded  
10 to said merchant.

1 32. The system according to Claim 30, wherein said payment initiation message is digitally  
2 signed by said merchant using a digital certificate of said merchant, and further comprising  
3 means for verifying said digitally signed payment initiation message using said digital certificate  
4 of said merchant.

1 33. The system according to Claim 30, further comprising:  
2 means for using said included context information for allocating a portion of a payment  
3 represented by said payment message to one or more TV originators.

1 34. The system according to Claim 33, wherein said means for using said included context  
2 information further comprises:

3 means for extracting an identification of each of said one or more TV originators from  
4 said included context information; and

5 means for allocating a predetermined percent of said payment to each of said identified  
6 TV originators.

1 35. The system according to Claim 34, further comprising means for sending said included  
2 context information from said card company or bank to at least one of said one or more identified  
3 TV originators.

1 36. The system according to Claim 30, further comprising:  
2 means for authenticating said consumer by digitally signing said payment message by  
3 said consumer using a consumer digital certificate; and  
4 means for verifying said digitally signed payment message using said consumer digital  
5 certificate.

1 37. The system according to Claim 30, further comprising means for using a shared key  
2 known to said consumer and said issuing bank to authenticate said consumer.

1 38. The system according to Claim 20, further comprising:  
2 means for initiating a payment transaction by said consumer;  
3 means for gathering TV context information related to said payment transaction; and  
4 means for including said gathered TV context information in a message corresponding to  
5 said payment transaction.

1 39. A method for enabling television ("TV") commerce to generate additional revenue  
2 streams in an interactive television environment, said environment having a connection to a  
3 computer network and said method comprising the steps of:  
4 initiating a TV commerce purchase by a consumer;  
5 gathering TV context information related to said purchase; and

6 including said gathered context information in a payment message corresponding to said  
7 purchase.

1 40. The method according to Claim 39, further comprising the steps of:

2 sending, responsive to said initiating step, a purchase request for said purchase from said  
3 consumer to a computer in said interactive television environment;

4 receiving said purchase request at said computer;

5 forwarding said purchase request from said computer to a merchant connected to said  
6 interactive television environment;

7 receiving said forwarded purchase request at said merchant;

8 sending a payment initiation message for said purchase, responsive to said step of  
9 receiving said forwarded purchase request, from said merchant to said consumer through said  
10 interactive television environment;

11 receiving said sent payment initiation message by said consumer;

12 augmenting said received payment initiation message with said gathered TV context  
13 information, thereby creating said payment message corresponding to said purchase;

14 forwarding said payment message to an issuing bank;

15 receiving said forwarded payment message at said issuing bank;

16 creating at said issuing bank, responsive to said step of receiving said forwarded payment  
17 message, an authorization token for said purchase;

18 sending said authorization token and said TV context information from said issuing bank  
19 to said consumer;

20 forwarding said sent authorization token and said TV context information from said  
21 consumer to said merchant;

22 receiving said forwarded authorization token and said TV context information at said  
23 merchant;  
24 sending, responsive to said step of receiving said forwarded authorization token and said  
25 TV context information, a capture request from said merchant to an acquiring bank, along with  
26 said received authorization token and said received TV context information;  
27 receiving said capture request, said received authorization token, and said received TV  
28 context information at said acquiring bank; and  
29 charging, responsive to said step of receiving said capture request, said received  
30 authorization token, and said received TV context information, an account of said consumer for  
31 said purchase.

1 41. The method according to Claim 40, wherein said TV context information is included as a  
2 part of said authorization token.

1 42. The method according to Claim 40, wherein said payment initiation message is a wallet  
2 initiation message and wherein said gathered TV context information augments said received  
3 wallet initiation message, thereby creating said payment message corresponding to said purchase,  
4 and further comprising the steps of:

5 invoking a wallet program upon receipt of said sent payment initiation message by said  
6 consumer;

7 logging on to said wallet program by said consumer, thereby creating consumer log-on  
8 data; and

9 including said consumer log-on data when said payment message is forwarded to said  
10 issuing bank.



1 43. The method according to Claim 40, wherein said payment initiation message is digitally  
2 signed by said merchant using a digital certificate of said merchant and said authorization token  
3 is digitally signed by said issuing bank using an issuing bank digital certificate, and further  
4 comprising the steps of:

5 verifying said digitally signed payment initiation message using said digital certificate of  
6 said merchant; and

7 verifying said digitally signed authorization token using said issuing bank digital  
8 certificate.

1 44. The method according to Claim 39, further comprising the step of:

2 using said included context information for allocating a portion of a payment represented  
3 by said payment message to one or more TV originators.

1 45. The method according to Claim 44, wherein said step of using said included context  
2 information further comprises the steps of:

3 extracting an identification of each of said one or more TV originators from said included  
4 context information; and

5 allocating a predetermined percent of said payment to each of said identified TV  
6 originators.

1 46. The method according to Claim 45, further comprising the step of sending said included  
2 context information from said acquiring bank to at least one of said one or more identified TV  
3 originators.

1 47. The method according to Claim 40, further comprising the steps of:

2 authenticating said consumer by digitally signing said payment message by said  
3 consumer using a consumer digital certificate; and  
4 verifying said digitally signed payment message using said consumer digital certificate.

1 48. The method according to Claim 40, further comprising the step of using a shared key  
2 known to said consumer and said issuing bank to authenticate said consumer.

1 49. The method according to Claim 39, further comprising the steps of:  
2 sending, responsive to said initiating step, a purchase request for said purchase from said  
3 consumer to a computer in said interactive television environment;  
4 receiving said purchase request at said computer;  
5 forwarding said purchase request from said computer to a merchant connected to said  
6 interactive television environment;  
7 receiving said forwarded purchase request at said merchant;  
8 sending a payment initiation message for said purchase, responsive to said step of  
9 receiving said forwarded purchase request, from said merchant to said consumer through said  
10 interactive television environment;  
11 receiving said sent payment initiation message by said consumer;  
12 augmenting said received payment initiation message with said gathered TV context  
13 information, thereby creating said payment message corresponding to said purchase;  
14 returning said payment message to said merchant;  
15 forwarding said returned payment message from said merchant to a card company or  
16 bank;  
17 charging, responsive to said step of receiving said forwarded payment message, an  
18 account of said consumer for said purchase; and

19           paying said merchant for said purchase.

1       50.    The method according to Claim 49, wherein said payment initiation message is a wallet  
2       initiation message and wherein said gathered TV context information augments said received  
3       wallet initiation message, thereby creating said payment message corresponding to said purchase,  
4       and further comprising the steps of:

5           invoking a wallet program upon receipt of said sent payment initiation message by said  
6       consumer;

7           logging on to said wallet program by said consumer, thereby creating consumer log-on  
8       data; and

9           including said consumer log-on data when said payment message is forwarded to said  
10      merchant.

1       51.    The method according to Claim 49, wherein said payment initiation message is digitally  
2       signed by said merchant using a digital certificate of said merchant, and further comprising the  
3       step of verifying said digitally signed payment initiation message using said digital certificate of  
4       said merchant.

1       52.    The method according to Claim 49, further comprising the step of:  
2           using said included context information for allocating a portion of a payment represented  
3       by said payment message to one or more TV originators.

1       53.    The method according to Claim 52, wherein said step of using said included context  
2       information further comprises the steps of:

3 extracting an identification of each of said one or more TV originators from said included  
4 context information; and

5 allocating a predetermined percent of said payment to each of said identified TV  
6 originators.

1 54. The method according to Claim 53, further comprising the step of sending said included  
2 context information from said card company or bank to at least one of said one or more identified  
3 TV originators.

1 55. The method according to Claim 49, further comprising the steps of:  
2 authenticating said consumer by digitally signing said payment message by said  
3 consumer using a consumer digital certificate; and  
4 verifying said digitally signed payment message using said consumer digital certificate.

1 56. The method according to Claim 49, further comprising the step of using a shared key  
2 known to said consumer and said issuing bank to authenticate said consumer.

1 57. The method according to Claim 39, further comprising the steps of:  
2 initiating a payment transaction by said consumer;  
3 gathering TV context information related to said payment transaction; and  
4 including said gathered TV context information in a message corresponding to said  
5 payment transaction.